Amendments to the Claims:

This claim listing will replace all prior versions and listings of claims in the application:

Claim Listing:

34. (Previously Amended) A method for inhibiting neoplastic cell proliferation in an animal comprising administering to an animal having at least one neoplastic cell present in its body a therapeutically effective amount of an agent that inhibits one or more specific histone deacetylase isoforms, but less than all histone deacetylase isoforms.

35. (Previously Amended) A method for inhibiting neoplastic cell proliferation in an animal comprising administering to an animal having at least one neoplastic cell present in its body a therapeutically effective amount of an agent that inhibits one or more specific histone deacetylase isoforms, but less than all histone deacetylase isoforms, wherein the agent is an oligonucleotide complementary to a region of RNA or double-stranded DNA that encodes a portion of one or more histone deacetylase isoforms.

36. (Original) The method according to claim 35, wherein the animal is a human.

37. (Original) The method according to claim 35, further comprising administering to the animal a therapeutically effective amount of a histone deacetylase small molecule inhibitor with a pharmaceutically acceptable carrier for a therapeutically effective period of time.

44. (Canceled)

45. (Previously Amended) A method for modulating cell proliferation or differentiation of a cell comprising inhibiting a specific HDAC isoforms that is involved in cell proliferation or differentiation by contacting the cell with an agent that inhibits one or more specific histone deacetylase isoforms, but less than all histone deacetylase isoforms.

46. (Original) The method according to claim 45, wherein the cell proliferation is neoplasia.

47. (Original) The method according to claim 46, wherein the histone deacetylase isoform is selected from the group consisting of HDAC-1, HDAC-2, HDAC-3, HDAC-4, HDAC-5, HDAC-6, HDAC-7 AND HDAC-8.

48. (Original) The method according to claim 47, wherein the histone deacetylase isoform is HDAC-1 and/or HDAC-4.

49. (Previously presented) The method according to claim 34, wherein the animal is a human.

50. (New) A method for inhibiting neoplastic cell proliferation in an animal comprising administering to an animal having at least one neoplastic cell present in its body a therapeutically effective amount of an agent that inhibits one or more specific histone deacetylase isoforms, but less than all histone deacetylase isoforms, wherein the agent is a histone deacetylase small molecule inhibitor.

51. (New) The method according to claim 50, wherein the animal is a human.

52. (New) The method according to claim 50, further comprising administering to the animal a therapeutically effective amount of an oligonucleotide complementary to a region of RNA or double-stranded DNA that encodes a portion of one or more histone deacetylase isoforms with a pharmaceutically acceptable carrier for a therapeutically effective period of time.